



David Kirby

Course Home Module 3 **Take Test: Quiz 3.4**

## Take Test: Quiz 3.4

### Test Information

Description

Instructions

Multiple Attempts This test allows multiple attempts.

Force Completion This test can be saved and resumed later.

▼ Question Completion Status:

### QUESTION 1

1 points

Saved

The formula  $G(s) = C(sI - A)^{-1}B + D$  is used to do which of the following?

- ☐ Convert a state-space model to an  $n^{\text{th}}$  order differential equation.
- ☐ Convert one state-space model into another state-space model.
- ☐ Convert a transfer function to a state-space model.
- ☒ Convert a state-space model to a transfer function.

### QUESTION 2

1 points

Saved

The input and output of the transfer function  $G(s) = C(sI - A)^{-1}B + D$  are the same as the input and output of the state-space model  $(A, B, C, D)$ .

- ☒ True

☐ False

### QUESTION 3

1 points

Saved

Which of the following is most correct?

- ☒ A state-space model corresponds to just **one** transfer function.
- ☐ A state-space model does not correspond to any transfer functions.
- ☐ A state-space model corresponds to multiple transfer functions.
- ☐ A state-space model corresponds to an infinite number of transfer functions.

*Click Save and Submit to save and submit. Click Save All Answers to save all answers.*

Save All Answers

Save and Submit